

4.3 Sampling Equipment Decontamination

The specific procedure for decontaminating sampling equipment (Table 4.2) is described in the Field Equipment Decontamination SOP (Appendix F).

Table 4.2 Sample Collection Equipment Requiring Decontamination

Sample Type	Equipment	Decontamination Frequency
Surface Water	Filler cap	Between each sample
Sediment	Sediment homogenization equipment: bowls, spoons, etc.	Between each sample
Resident Fish	Fillet knives	Between each sample

PCBs are the primary contaminant of concern. PCBs are semivolatile organic compounds not subject to rapid photodegradation, and so precautions against volatilization or exposure to sunlight are unnecessary. In general, equipment will be cleaned using soap and water washing followed by rinsing with a polar solvent (methanol) and a nonpolar solvent (n-hexane), and finally rinsing with distilled water. The soap and water washing is intended to remove oils, etc., while the two solvents will remove PCBs and other contaminants of varying polarities.

Special effort will also be made to minimize sample contamination by keeping the sampling vessel, field vehicles, and the clothing of the field crews as clean as possible.

4.4 Quality Assurance Objectives for Measurement Data

The overall objective of a Quality Assurance Program is to develop and implement procedures for field sampling, chain-of-custody, laboratory analysis, and reporting to provide results which are legally and technically defensible. This is accomplished by applying specific QA/QC procedures designed to produce analytical data of known and measurable quality.

4.4.1 Precision

Precision is the reproducibility or degree of agreement among replicate measurements of a single analyte or property. The closer the numerical values of the measurements are to each other, the more precise the measurement. The measure typically used to estimate the precision of a method is the standard error of the estimates for the least square regression line of "measured" vs. "target" concentrations.